SONY

3-751-112-21 (1)

FM/AM Cassette Car Stereo

XR-4147

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NATIONAL TECHNICAL DEPT.
FILE COPY
Do not remove

Operating Instructions page 2

Before operating the unit, please read this manual thoroughly and retain it for future reference.

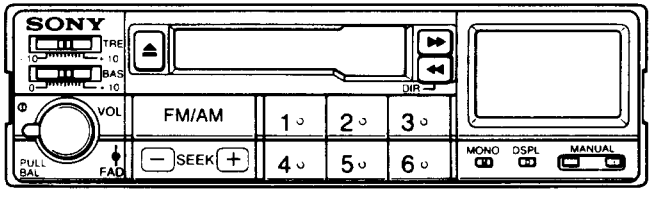
Owner's Record

The model and the serial numbers are located on the top. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. XR-4147 Serial No._____

Mode d'emploi page 16

Avant la mise en service de cet appareil, prière de lire attentivement ce mode d'emploi que l'on conservera pour toute référence ultérieure.



For installation and connections, see the supplied installation/connection manual.

En ce qui concerne l'installation et les connexions, se reporter au mode d'emploi d'installation et connexion fourni.

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English

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Features

Tuner section
- SSIR (Sony Super Interference Rejection) PLL Synthesizer tuner.
- Up to 12 FM and 6 AM stations can be preset.
- Extended range in AM band (530 - 1,710 kHz).

Cassette deck section
The auto-reverse function changes the tape direction automatically.

Power amplifier section
Fader control for playback with a 4-speaker system.

General
Quartz-controlled digital clock.

INFORMATION
This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna
Relocate the equipment with respect to the receiver
Move the equipment away from the receiver
Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Precautions

- If your car was parked in direct sunlight and there was a considerable rise in temperature inside the car, allow the unit to cool off before operating.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers of a 2-speaker system, set the fader control to the center position.

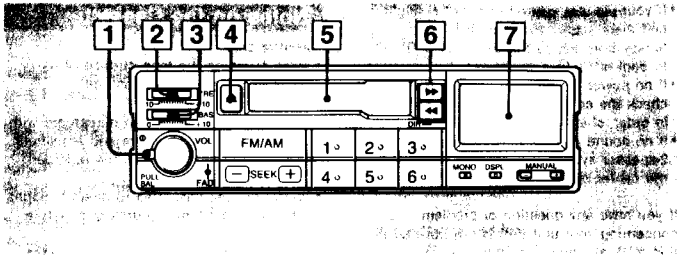
If you have any question or problem concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

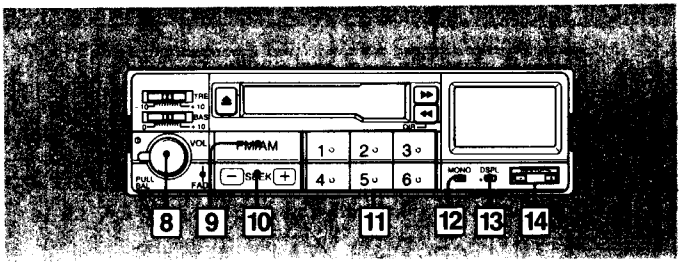
Notes on the Cassette

Cassette care
- Avoid touching the tape surface of a cassette, as any dirt or dust will contaminate the head.
- Keep cassettes away from equipment with magnets such as speakers and amplifiers, as erasure or distortion on the recorded tape could occur.
- Do not expose cassettes to direct sunlight, extremely cold temperatures or moisture.

Note on cassettes longer than 90 minutes
The use of cassettes longer than 90 minutes is not recommended except for long continuous playback.

Location and Function of Controls





Refer to the page in ● for details.

[1] FAD (fader) control
Turn clockwise to decrease the volume of the rear speakers or counterclockwise to decrease the volume of the front speakers.

[2] TRE (treble) level control

[3] BAS (bass) boost control

[4] ⏏ (eject) button
Press to stop the tape and take out the cassette.

[5] Cassette insertion door

[6] ◀◀/▶▶ (fast winding) buttons/DIR (tape transport direction change) buttons ●
During playback, depress ◀◀ or ▶▶ for fast winding, or press both ◀◀ and ▶▶ simultaneously to listen to the other side of the cassette.

[7] Display window

[8] Power on-off switch/VOL (volume) control/PULL BAL (balance) control

Power on/off switch	Press to turn on and off the unit.
VOL control	Turn clockwise to increase volume and counterclockwise to decrease.
PULL BAL control	While pulling the control, turn to adjust the balance of the left and the right channel output.

[9] FM/AM band selector ●
Press to select the desired band, FM 1, FM 2, or AM.

[10] SEEK −/+ button ●
Press − side to search for lower frequencies and + side for higher frequencies.

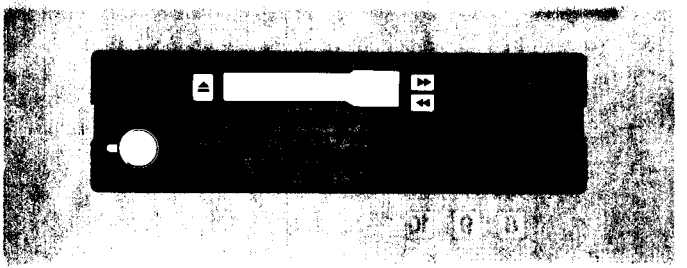
[11] Preset buttons ●

[12] MONO (monaural) button ●
Press to reduce noise during reception of a weak FM stereo program. To listen to in stereo, press it again.

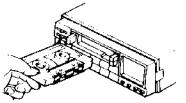
[13] DSPL (display) button ●
Press to display the time indication during radio reception.

[14] MANUAL −/+ button ● ●
Press to tune in the desired station manually.
Use this button also for clock setting.

Tape Playback



1 **Press to turn on the unit.**

2 

Insert a cassette.
Playback starts automatically.

3 **Adjust the volume.**

Other Operations

To [illegible]

Press ▶▶ and ◀◀ (simultaneously).

To [illegible]

Direction indicator	To advance	To rewind
▶	Depress ▶▶	Depress ◀◀
◀	Depress ◀◀	Depress ▶▶

To resume playback, press ▶▶ or ◀◀ lightly, which is not depressed.

To [illegible] and listen to the radio

Press ⏏. The unit enters the radio mode.

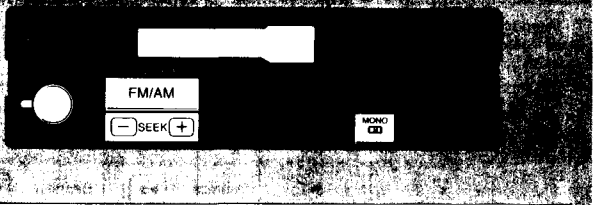
To stop playback and turn off the unit

Press ⏏ and then ⏻.

Side of the cassette being played back
This unit plays back both sides of the cassette repeatedly.
The indicator on the display window shows which side of the cassette is being played back.

Indicator	Side
▶	The side facing upward
◀	The side facing downward

Automatic Tuning



1 **Press to turn on the unit.**

2 FM/AM — **Press to select the desired band, FM 1, FM 2, or AM.**

3 SEEK — **Press to start scanning.**

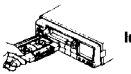
−: For lower frequencies
+: For higher frequencies

The scanning automatically stops when a station is tuned in.

Repeat this step until the desired station is tuned in.

4 **Adjust the volume.**

Other Operations



Insert a cassette.

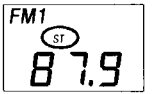
Press .

When the FM stereo program is too weak and noisy

Press MONO [M].

The noise will be reduced.
The sound will be monaural instead.

When an FM stereo program of sufficient signal strength is tuned in



The program is automatically received in stereo.

To display the time indication during radio reception

Press DSPL.
To restore the frequency indication, press it again.

Manual Tuning

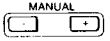
Use this method when you know the frequency of the desired station, or when the desired station is not received as tuned in by the automatic tuning.

1

Press to turn on the unit.

2 FM/AM

Press to select the desired band, FM 1, FM 2 or AM.

3 MANUAL 

Press to select the desired station.

–: For lower frequencies
+: For higher frequencies

To change the frequency rapidly, keep the button pressed.

4

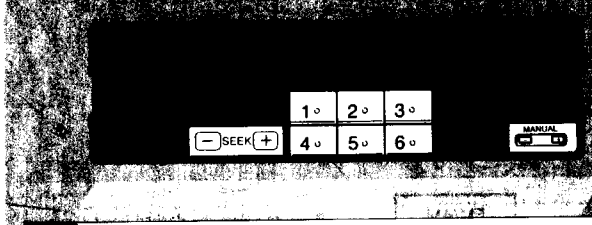
Adjust the volume.

Warning
While driving, keep your eyes on the road and use the automatic tuning or the memory preset tuning!

Memory Preset Tuning

To Memorize the Stations

Select a band and receive a station which you want to store in the memory.

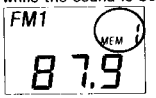


1 (–)SEEK(+) or MANUAL (–) (+)

Tune in a desired station
using automatic or manual tuning.

2 1 ~ 6

Keep the desired preset button pressed
while the sound is being muted.

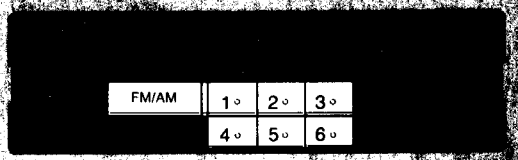


The station is memorized.

Repeat these steps for each station.

Important
Every preset button has only one memory for a band. The previously memorized station will be erased when you enter a new station of the same band on the same preset button.

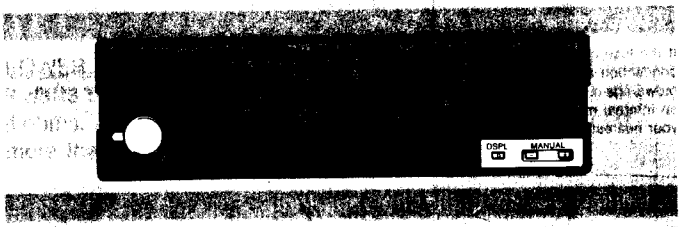
To Receive the Preset Station



1 FM/AM — **Press to select the desired band.**

2 1 ~ 6 — **Press the desired preset button lightly.**

Setting the Clock



1 — **Press to turn on the unit.**

2 DSPL (D) — **Press once to display the time digits.**

3 DSPL (D), MANUAL (−) (+) — **Press to set the time digits while pressing the DSPL button.**

−: To advance the **hour** digits
+: To advance the **minute** digits

To advance the digits rapidly, keep the button pressed.

When you set minute digits
- Minute and hour digits do not go backward.
- "00" comes after "59". The hour digits do not change then.

Maintenance

Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In this case, consult your nearest Sony dealer.

Warning
Use the specified ampere fuse for each lead. Use of a higher amperage fuse may cause serious damage.

Cleaning the Head and the Tape Path

Prolonged use may contaminate the tape head and the tape path. Contamination causes sound drop-outs in playback. Clean the tape head and the tape path every two weeks to enjoy optimum hi-fi stereo sound. Use a commercially available cleaning cassette.

Specifications

Audio Power Specifications

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
9 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 30 to 20,000 Hz with no more than 1% total harmonic distortion.

Other Specifications

Power amplifier section
Outputs — Speaker outputs (sure seal connectors)
Speaker impedance — 4 8 ohms
Maximum power output — 22 W + 22 W (at 4 ohms)*
* Measured at 14.4 V

Cassette player section
Tape track — 4-track 2-channel stereo
Frequency response — 30 15,000 Hz
Signal-to-noise ratio — 55 dB
Wow and flutter 0.15% (WRMS)

Tuner section
FM
Tuning range — 87.9 - 107.9 MHz
Antenna terminal — External antenna connector
Intermediate frequency — 10.7 MHz
Usable sensitivity — 15 dBf (75 ohms)
Selectivity — 70 dB at 400 kHz
Signal-to-noise ratio — 66 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz — 0.9% (stereo), 0.5% (mono)
Separation — 35 dB at 1 kHz
Frequency response — 30 - 15,000 Hz
Capture ratio — 2 dB

AM
Tuning range — 530 1,710 kHz
Antenna terminal — External antenna connector
Intermediate frequency — 450 kHz
Sensitivity — 35 μV

General
Time display system — 12 hour display
Output lead — Power antenna relay control lead
Tone controls — Bass: 0 +10 dB at 100 Hz
Treble: ±8 dB at 10 kHz
Power requirements — 12 V DC car battery (negative ground)
Dimensions — Approx. 178 × 50 × 165 mm (w/h/d) (7 1/8 × 2 × 6 1/2 inches)
Mounting dimensions — Approx. 178 × 50 × 145 mm (w/h/d) (7 1/8 × 2 × 5 3/4 inches)
Weight — Approx. 1.4 kg (3 lb 2 oz)
Accessories supplied — Mounting hardware (1 set)

Design and specifications subject to change without notice.